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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/711,489

09/21/2004

John Christian Hartley Mungall

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08/09/2005

BRADLEY A. MISLEY PATENT AND LICENSING DEPARTMENT
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EXAMINER

LEE, JONG SUK

ART UNIT

PAPER NUMBER

3673

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/711,489

Applicant(s)

MUNGALL ET AL.

Examiner

Jong-Suk (James) Lee

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 22 and 27-32 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25 and 26 is/are allowed.
- 6) ☒ Claim(s) 1-21, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/28/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Species A (Figs. 3A-3H) in the reply filed on July 18, 2005 is acknowledged. Applicant further stated that claim 22 is readable on the Species A, but it is directed to Species B (Fig. 4A-4D) because the buoyancy device is installed "separately" from the first and second pipeline sections. Rather, claims 23 and 24 are considered to be readable on Species A.

Therefore, claims 22 and 27-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on July 18, 2005.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 23 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by de Baan et al (US 5,275,510).

de Baan et al discloses an offshore flexible loading system comprising a subsea pipeline constructed to carry fluids from a first location (12, 16) across a topographic feature/subsea bed to a second location (14, 18), said pipeline including at least one concentrated buoyancy device (32) characterized by positive buoyancy, said pipeline divided into a first pipeline section (28) extending from said first location to said buoyancy device and a second pipeline section (30) extending from said buoyancy device to said second location, and said buoyancy device providing a connection (118) between said first and second pipeline sections allowing fluid communication from said first pipeline section to said second pipeline section, wherein the topographic feature being subsea basins, and said concentrated buoyancy device is cylindrical buoys, wherein said concentrated buoyancy device is installed together with said first pipeline section and said concentrated buoyancy device is configured to be installed simultaneously with said second pipeline section (see Figs. 1-8C; col.3, lines 49-68; col.4, lines 1-68; col.5, lines 1-62).

4. Claims 1-6, 8, 23 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Shatto, Jr. (US 3,111,926).

Shatto, Jr. discloses an apparatus for anchoring underwater vessels comprising a subsea pipeline constructed to carry fluids from a first location (20, 21) and a second location (22, 23, said pipeline including at least one concentrated buoyancy device (11) characterized by positive buoyancy, said pipeline divided into a first pipeline section (20,21) extending from said first location to said buoyancy device and a second pipeline section (23, 24) extending from said buoyancy device to said second location, and said buoyancy device providing a connection

Art Unit: 3673

between said first and second pipeline sections allowing fluid communication from said first pipeline section to said second pipeline section, the apparatus further including a mooring system comprising of a plurality of mooring lines (14, 15) with the subsea anchor piling (16) at their ends proximate to the first and the second locations, wherein the topographic feature being subsea basins, and said concentrated buoyancy device is cylindrical buoys, wherein said concentrated buoyancy device is installed together with said first pipeline section and said concentrated buoyancy device is configured to be installed simultaneously with said second pipeline section (see Figs. 1-7; col.2, lines 12-72; col.3, lines 1-74).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 7 and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shatto, Jr. in view of Maloberti et al (US 4,906,137). The teachings of Shatto, Jr. have been discussed above.

However, Shatto, Jr. fails to disclose or fairly suggest a flexure control device at the first and second locations. Maloberti et al discloses an apparatus for transferring fluid between subsea floor and the surface comprising a flexural control device (5-10) having a swivel (9), flex joint (8, 11), stress joint and an anchor (5) as depicted in Figs. 1-4 (see col.3, lines 47-68; col.4, lines 1-26).

Therefore, in view of Maloberti et al, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the flexure control device to the Shatto, Jr.'s pipelines in order to decrease stress concentration to the pipeline by controlling of the pipelines while being in use.

With respect to the suction anchor, an artisan within the ordinary skill in the art would have used a conventional subsea suction anchor instead of the subsea piling in order to effectively install the anchor in a deep sea.

7. Claims 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shatto, Jr. in view of Wittgenstein (US 3,173,271). The teachings of Shatto, Jr. have been discussed above.

However, Shatto, Jr. fails to disclose or fairly suggest the topographic feature being a cliff. Wittgenstein discloses an underwater pipeline installation on the various topographic features such as cliff, ridge or valleys (see Figs 1-4; col.4, lines 16-72).

Therefore, in view of Wittgenstein, it would have been obvious to one of ordinary skill in the art at the time the invention was made to place the Shatto, Jr.'s pipeline system in order to enhance the fluid communication through the pipeline by providing leveled pipeline configurations even under the various topographical subsea bed.

Allowable Subject Matter

8. Claims 25 and 26 would be allowable over the prior art of record.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Other references cited disclose a method and apparatus for supplying temporary buoyancy to an underwater pipeline, a tethered buoyant support for risers and a submerged flowline termination at a single point mooring buoy.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jong-Suk (James) Lee whose telephone number is (571)272-7044. The examiner can normally be reached on 6:30 am to 3:00 pm, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on (571) 272-7049. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/711,489
Art Unit: 3673

Page 7

A handwritten signature in black ink, appearing to read 'J Lee', with a large, stylized initial 'J'.

Jong-Suk (James) Lee
Primary Examiner
Art Unit 3673

/jjl
August 3, 2005